

### **Remarks**

This is a Response to the Office Action mailed on September 1, 2005. Entry of this Response and reconsideration of this application are respectfully requested.

Claims 1-7 are pending in this Application.

Claims 1-7 have been amended. Support for claims 1 and 7 may be found on page 10 of the Application, support for claim 3 may be found on page 22 of the Application, and support for claim 5 may be found on page 19 of the Application.

Claims 8-17 have been added. Support for claim 8 may be found on page 4 of the Application, support for claim 9 may be found in original claim 1 and throughout the Application, and support for claims 10-17 may be found in original claim 1 and on page 21. No new matter has been added.

### **Double Patenting Rejection**

Claims 1 and 7 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 7 of U.S. Patent No. 6,710,161 to Bardman et al. Applicants respectfully submit that they will provide an appropriate terminal disclaimer in the event that the subject rejection becomes a non-provisional rejection.

### **Rejection under 35 U.S.C. §112**

Claims 1-7 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In light of the above amendments, Applicants request this rejection be withdrawn.

### **Rejections under 35 U.S.C. §102(e)**

Claims 1-2 and 4-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Bardman et al. (U.S. Patent No. 6,576,051). Applicants submit that Bardman et al. neither teach nor disclose the claimed invention because Bardman et al. do not teach polymer particles prepared by aqueous emulsion polymerization of a phosphorus acid monomer at a pH of less than 2.

Bardman et al. '051, example F, which is summarized in the Office Action as disclosing the invention, is shown to be unstable (See, Table 4.5) in Bardman et al. '051 and, as such, is used as a fail example. As a fail example, example F cannot anticipate

the invention and the notable improvements of increased saturation of color, less variations in efficiencies of colorant particles and lower levels of colorant particles necessary for preparation of colored coatings. See, Application, page 2. In addition, the Application describes that a pH between 2 and 4 is not effective, and a pH of less than 2 is necessary for these improvements. Thus, Applicants request this rejection be withdrawn.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Dersch et al. (U.S. Patent No. 6,492,451). Applicants submit that Dersch et al. neither teach nor disclose the claimed invention because Dersch et al. do not teach polymer particles prepared by aqueous emulsion polymerization of a phosphorus acid monomer at a pH of less than 2.

Dersch et al. do not teach pH control. Example C in the Application is similar to the disclosures in Dersch et al. and is shown in Table 3.2 to be a fail control with low apparent strength, unstable color and large standard deviation in color development. Therefore, the teachings and the omission of pH control in Dersch et al. would lead to a completely different polymer composition. As such, Applicants request this rejection be withdrawn.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Rosano et al. (U.S. Patent No. 6,890,983). Applicants submit that Rosano et al. neither teach nor disclose the claimed invention because Rosano et al. do not teach polymer particles prepared by aqueous emulsion polymerization of a phosphorus acid monomer at a pH of less than 2.

Rosano et al. do not teach pH control. Although Rosano et al. mention pH of 1 to 4, they only describe a process that results in a pH of between 2 and 5, which is outside the range of less than 2, as required in the claims. Rosano et al. also teach the use of polyvalent metal ions in an aqueous composite particle, which is outside the scope of the present invention. Because Rosano et al. do not teach pH control and require polyvalent metal ions, Applicants request this rejection be withdrawn.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Bardman et al. (U.S. Patent No. 6,710,161). Applicants submit that Bardman et al. neither teach nor disclose the claimed invention because Bardman et al. do not teach

colorant particles with polymer particles comprised of polymerized units of phosphorus acid monomer and having first phosphorus acid groups in a polymer composition.

Although Bardman et al. '161 disclose in col. 15 that pigments and dyes may be included in the polymer composition, Bardman et al. '161 do not teach that the polymer composition, as claimed, results in notable improvements of increased saturation of color, less variations in efficiencies of colorant particles and lower levels of colorant particles necessary for preparation of colored coatings. See, Application, page 2. Therefore, without further experimentation, one skilled in the art would not know how to incorporate colorants into the polymer composition of Bardman et al. '161 to get the results of the present invention. As such, Applicants request this rejection be withdrawn.

Claims 1-2 and 6-7 are rejected under 35 U.S.C. §102(e) as being anticipated by Xue et al. (U.S. Patent No. 6,833,401). Applicants submit that Xue et al. neither teach nor disclose the claimed invention because Xue et al. do not teach polymer particles prepared by aqueous emulsion polymerization of a phosphorus acid monomer at a pH of less than 2.

Xue et al. teach composite particles formed when monomers are copolymerized in the presence of dispersed inorganic solid, but not pH control. Examples 1 through 16 of Xue et al. range in pH from 2.5 to 10, but there is no disclosure of pH less than 2. There is also no preference for a phosphorus-based acid, as required in claim 1 and the composite particles of Xue et al. may be prepared in the absence of any phosphorus acid monomer. In fact, none of Examples 1 through 16 contains phosphorus acid monomer. Therefore, Applicants request this rejection be withdrawn.

#### **Rejections under 35 U.S.C. §103(a)**

Claims 1-3 and 7 are rejected under 35 U.S.C. §103(a) as unpatentable over EP 330246. Applicants submit that EP '246 neither teaches nor discloses the claimed invention because EP '246 does not teach polymer particles prepared by aqueous emulsion polymerization of a phosphorus acid monomer at a pH of less than 2.

Examples I-V of EP '246 disclose exclusively clear films. Example V describes the use of a curing agent and a photoinitiator. No pigments are mentioned and in fact, the addition of a pigment would compromise the function of the photoinitiator in Example V. One skilled in the art would know that the direct addition of pigments would cause the

composition of EP '246 to fail to cure effectively. Therefore, the composition of EP '246 could not be modified to include pigments and this rejection should be withdrawn.

Claims 1 and 7 are rejected under 35 U.S.C. §103(a) as being obvious over Bardman et al. '161. Based on the arguments above, this rejection should be withdrawn.

**Conclusion**

In view of these remarks, Applicants believe that the pending claims are in condition for allowance, and early and favorable action is earnestly solicited.

This Paper is believed to be timely filed with a one-month extension-of-time. If any other fees are deemed required for consideration of this Response, the Commissioner is authorized to charge such fee to Deposit Account No. 18-1850.

Respectfully submitted,



Kim R. Jessum  
Attorney for Applicants  
Registration No. 43,694  
Telephone No. 215-592-3689

Rohm and Haas Company  
100 Independence Mall West  
Philadelphia, PA 19106-2399

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